

This listing of claims will replace all prior versions, and listings, of claims in the application:

The Status of the Claims

1. (Currently Amended) A method comprising:

generating a processor instruction proxy stub ~~associated with~~based on one or more processor instructions not supported by a managed runtime environment;

~~receiving a managed application program interface associated with a managed runtime environment, the managed application program interface and the managed runtime environment not supporting the one or more processor instructions;~~

~~replacing a portion of~~inserting the processor instruction proxy stub into ~~[[the]]~~a managed application program interface associated with a managed runtime environment with native code supporting one or more processor instructions to generate an optimized managed application program interface supporting the one or more processor instructions; and

compiling the optimized managed application program interface including the ~~native code~~processor instruction proxy stub using a compiler of ~~[[a]]~~the managed runtime environment to generate compiled code.

wherein generating the processor instruction proxy stub based on the one or more processor instructions comprises generating the processor instruction proxy stub during installation of a managed runtime application and generating the processor instruction proxy stub in response to identifying the processor associated with the one or more processor instructions.

2. (Currently Amended) A method as defined in claim 1, wherein generating the processor instruction proxy stub associated with the one or more processor instructions

comprises generating the processor instruction proxy stub at a layer associated with a virtual machine of ~~[[a]]the~~ managed runtime environment.

3. (Cancelled)

4. (Original) A method as defined in claim 1, wherein generating the processor instruction proxy stub associated with the one or more processor instructions comprises generating the processor instruction proxy stub associated with one of a Streaming SIMD Extension (SSE) instruction, an SSE2 instruction, and a MultiMedia Extension instruction.

5. (Original) A method as defined in claim 1, wherein generating the processor instruction proxy stub associated with the one or more processor instructions comprises generating the processor instruction proxy stub via marshaling language code of a virtual machine.

6. (Cancelled)

7. (Currently Amended) A method as defined in claim 1, further comprising enabling a feature associated with the one or more processor instructions during execution of ~~[[a]]the~~ managed runtime application based on the optimized managed application program interface.

8. (Currently Amended) A machine accessible medium having instructions, which when executed, cause a machine to:

generate a processor instruction proxy stub ~~associated with~~based on one or more processor instructions not supported by a managed runtime environment;

~~receive a managed application program interface associated with a managed runtime environment, the managed application program interface and the managed runtime environment not supporting the one or more processor instructions;~~

~~replace a portion of the managed application program interface with native code supporting [[the]] one or more processor instructions~~insert the processor instruction proxy stub into a managed application program interface associated with the managed runtime environment to generate an optimized managed application program interface supporting the one or more processor instructions; and

compile the optimized managed application program interface including the ~~native code~~processor instruction proxy stub using a compiler of ~~[[a]]the~~ managed runtime environment to generate compiled code.

wherein the instructions cause the machine to generate the processor instruction proxy stub based on the one or more processor instructions by generating the processor instruction proxy stub during installation of the managed runtime application and by generating the processor instruction proxy stub in response to identifying the processor associated with the one or more processor instructions.

9. (Currently Amended) A machine accessible medium as defined in claim 8, wherein the instructions cause the machine to generate the processor instruction proxy stub associated with the one or more processor instruction by generating the processor instruction

proxy stub at a layer associated with a virtual machine of ~~[[a]]the~~ managed runtime environment.

10. (Cancelled)

11. (Original) A machine accessible medium as defined in claim 8, wherein the instructions cause the machine to generate the processor instruction proxy stub associated with the one or more processor instructions comprises generating the processor instruction proxy stub associated with one of a Streaming SIMD Extension (SSE) instruction, an SSE2 instruction, and a MultiMedia Extension instruction.

12. (Original) A machine accessible medium as defined in claim 8, wherein the instructions cause the machine to generate the processor instruction proxy stub associated with one or more processor instructions by generating the processor instruction proxy stub via marshaling language code of a virtual machine.

13. (Cancelled)

14. (Currently Amended) A machine accessible medium as defined in claim 8, wherein the instructions cause the machine to enable a feature associated with the one or more processor instructions for execution of ~~[[a]]the~~ managed runtime application based on the optimized managed application program interface.

15. (Original) A machine accessible medium as defined in claim 8, wherein the machine accessible medium comprises one of a programmable gate array, application specific integrated circuit, erasable programmable read only memory, read only memory, random access memory, magnetic media, and optical media.

16. (Currently Amended) An apparatus comprising:

a processor; and

a memory having stored thereon:

a processor instruction proxy stub generator to generate a processor instruction proxy stub ~~associated with~~based on one or more processor instructions not supported by a managed runtime environment, ~~to receive a managed application program interface associated with a managed runtime environment, the managed application program interface and the managed runtime environment not supporting the one or more processor instructions, and to replace a portion of the managed application program interface with native code supporting the one or more processor instructions~~insert the processor instruction proxy stub into a managed application program interface associated with the managed runtime environment to generate an optimized managed application program interface supporting the one or more processor instructions; and

a compiler to compile the optimized managed application program interface including the ~~native code~~processor instruction proxy stub using a compiler of ~~[[a]]the~~ managed runtime environment to generate compiled code,
wherein the processor instruction proxy stub generator is integrated into one of a virtual machine and the compiler and wherein the processor instruction proxy stub generator

identifies a processor associated with the one or more processor instructions to generate the processor instruction proxy stub.

17. (Cancelled)

18. (Cancelled)

19. (Previously Presented) An apparatus as defined in claim 16, wherein one or more processor instructions comprise one of a Streaming SIMD Extension (SSE) instruction, an SSE2 instruction, and a MultiMedia Extension instruction .

20. (Original) An apparatus as defined in claim 16, wherein the compiler comprises a just-in-time compiler.

21. (Currently Amended) An apparatus as defined in claim 16, wherein the processor instruction proxy stub is generated at a layer associated with a virtual machine of [[a]]the managed runtime environment.

22. (Currently Amended) An apparatus as defined in claim 16, wherein the optimized managed application interface program enables a feature associated with the one or more processor instructions for execution of [[a]]the managed runtime application.

23. (Currently Amended) A processor system comprising:

a dynamic random memory (DRAM) to store one or more optimized managed application program interfaces associated with a managed runtime environment; and

a processor coupled to the DRAM to generate a processor instruction proxy stub ~~associated with~~based on one or more processor instructions ~~to receive the one or more managed application program interfaces, the one or more managed application program interfaces and the managed runtime environment not supporting the one or more processor instructions, to replace a portion of the one or more managed application program interfaces with~~insert native code supporting the one or more processor instructions ~~not supported by the managed runtime environment into the one or more managed application program interfaces associated with the managed runtime environment~~ to generate one or more optimized managed application program interfaces, and to compile the one or more optimized managed application program interfaces including the ~~native code~~processor instruction proxy stub using a compiler of ~~[[a]]~~the managed runtime environment to generate compiled code,
wherein the processor instruction proxy stub is generated at a layer associated with a virtual machine of the managed runtime environment and wherein the processor instruction proxy stub is generated during installation of the managed runtime application.

24. (Previously Presented) A processor system as defined in claim 23, wherein one or more processor instructions comprise one of a Streaming SIMD Extension (SSE) instruction, an SSE2 instruction, and a MultiMedia Extension instruction .

25. (Cancelled)

26. (Cancelled)

27. (Currently Amended) A processor system as defined in claim 23, wherein the one or more optimized managed application program interfaces enable a feature associated with the one or more processor instructions during execution of ~~[[a]]the~~ managed runtime application.